

BRIEFER ARTICLES.

A remarkable macrospore.—In recent literature references to Treub's "*Casuarina*"¹ are becoming quite frequent, and deservedly so, for *Casuarina* is a remarkable plant and the monograph gives the results of extensive investigations. The account of chalazogamy alone would make the paper a classic, but the peculiarities in the embryo-sac seem to merit equal attention. Treub says that the embryo-sac of *Casuarina* contains a sex-apparatus normally composed of two or three cells which seem to be derived from a single mother cell, yet the author claims that the cells associated with the oosphere are not synergidæ, but have an entirely different origin. The assertion is also made that in *Casuarina* no antipodal cells are formed. The lack of a secondary nucleus formed by the fusion of two polar nuclei is another exceptional feature, while the formation of endosperm and also the formation of cell walls around the oosphere and other cells of the sex-apparatus before fertilization complete a list of striking variations from the normal angiosperm type.

I have been deeply interested in *Casuarina*'s embryo-sac without antipodals, as I have been studying *Salix*, and for more than a year was unable to discover any trace of antipodals. However, *Salix* has antipodals, as some of my preparations now prove. Some slides also show the fusion of polar nuclei to form the endosperm nucleus. There is no doubt that the antipodals of *Salix* are exceedingly transitory but they are formed nevertheless. It may be that *Casuarina* has antipodals of this evanescent character. Since the technique betrayed by Treub's figures and text could be greatly improved, I should be glad to see the *Casuarina* sac studied again and in much greater detail, in order that Treub's conclusions may receive additional confirmation or be corrected.—CHAS. CHAMBERLAIN, *University of Chicago*.

Aster tardiflorus: a correction.—My attention has been called to a clerical error in my paper on *Aster tardiflorus* in the preceding number of the GAZETTE. On page 275, in the last clause of the first paragraph, the words "inner" and "outer" should be transposed; and the clause should read: the outer scales of the imbricated involucre longer than the inner. The error originally arose through mistaking the phrase "*inferioribus longioribus*" for *interioribus longioribus*.—MERRITT LYNDON FERNALD, *Cambridge, Mass.*

¹Sur les Casuarinées et leur place dans le système naturel. Ann. Jard. Buit. 10: —, —.